

L Number	Hits	Search Text	DB	Time stamp
-	109	(current adj transformer) with calibrat\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 15:51
-	2	("4356721").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/08/26 08:51
-	139	(current adj transformer) with calibrat\$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 15:52
-	14038	electricity and meter	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 16:59
-	598	(electricity same meter) and (current or amperage or amp) and (volt or voltage or potential) and transformer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 15:55
-	236094	324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:05
-	303	revenue with meter	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:01
-	1337	((power or electricity or electric or revenue) with meter) and (electricity or current or voltage or volt or power) and transformer and (324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:02
-	311	((((power or electricity or electric or revenue) with meter) and (electricity or current or voltage or volt or power) and transformer and (324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.)) and ((calibrat\$4 or correct\$4 or compensat\$4) same transformer)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:04
-	311	(((((power or electricity or electric or revenue) with meter) and (electricity or current or voltage or volt or power) and transformer and (324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.)) and ((calibrat\$4 or correct\$4 or compensat\$4) same transformer)) and (current or amps or amperage or volt or voltage or potential)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:05
-	4016	((324/74) or (324/141) or (324/142) or (324/86) or (340/870.01) or (340/870.02) or (340/870.04) or (702/60) or (702/61) or (702/65)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:07
-	150	(((((power or electricity or electric or revenue) with meter) and (electricity or current or voltage or volt or power) and transformer and (324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.)) and ((calibrat\$4 or correct\$4 or compensat\$4) same transformer)) and (current or amps or amperage or volt or voltage or potential)) and (((324/74) or (324/141) or (324/142) or (324/86) or (340/870.01) or (340/870.02) or (340/870.04) or (702/60) or (702/61) or (702/65)).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 17:38

-	10	((((power or electricity or electric or revenue) with meter) and (electricity or current or voltage or volt or power) and transformer and (324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.)) and ((calibrat\$4 or correct\$4 or compensat\$4) same transformer)) and (current or amps or amperage or volt or voltage or potential)) and (((324/74) or (324/141) or (324/142) or (324/86) or (340/870.01) or (340/870.02) or (340/870.04) or (702/60) or (702/61) or (702/65)).CCLS.)) and ((memory or eeprom or eeprom or prom or ram) with factor)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 18:20
-	9	("3732489" "4837504" "5469049" "5548527" "5742512" "5924051" "6133720" "6256128" "6459258").PN.	USPAT	2003/11/24 17:57
-	7	((((power or electricity or electric or revenue) with meter) and (electricity or current or voltage or volt or power) and transformer and (324/\$.ccls. or 340/\$.ccls. or 702/\$.ccls.)) and ((calibrat\$4 or correct\$4 or compensat\$4) same transformer)) and (current or amps or amperage or volt or voltage or potential)) and (((324/74) or (324/141) or (324/142) or (324/86) or (340/870.01) or (340/870.02) or (340/870.04) or (702/60) or (702/61) or (702/65)).CCLS.)) and ((memory or eeprom or eeprom or prom or ram) with transformer)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 18:20
-	5	("55444089" or ("5933004" or ("6112158"))).PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/11/24 18:38

CLASS 324 ELECTRICITY: MEASURING AND TESTING

- 300 **PARTICLE PRECESSION RESONANCE**
- 301 . Using a magnetometer
- 302 . . To determine direction
- 303 . Using well logging device
- 304 . Using optical pumping or sensing device
- 305 . . Having particular optical cell structure
- 306 . Determine fluid flow rate
- 307 . Using a nuclear resonance spectrometer system
- 308 . . Including a test sample and control sample
- 309 . . To obtain localized resonance within a sample
- 310 . . By scanning sample frequency spectrum
- 311 . . With signal decoupling
- 312 . . By spectrum storage and analysis
- 313 . . Including polarizing magnetic field/radio
 frequency tuning
- 314 . . With conditioning of transmitter signal
- 315 . . With sample resonant frequency and
 temperature interdependence
- 316 . Using an electron resonance spectrometer
 system
- 317 . . Including a test sample and control sample
- 318 . Spectrometer components
- 319 . . Polarizing field magnet
- 320 . . . With homogeneity control
- 321 . . Sample holder structure
- 322 . . Electronic circuit elements
- 323 **OF GEOPHYSICAL SURFACE OR SUBSURFACE
 IN SITU**
- 324 . Including borehole fluid investigation
- 325 . . To determine fluid entry
- 326 . For small object detection or location
- 327 . . Using oscillator coupled search head
- 328 . . . Of the beat frequency type
- 329 . . Using movable transmitter and receiver
- 330 . By aerial survey
- 331 . . For magnetic field detection
- 332 . With radiant energy or nonconductive-type
 transmitter
- 333 . . Within a borehole
- 334 . . With separate pickup
- 335 . . . Employing multiple frequencies
- 336 . . . To detect transient signals
- 337 . . . To detect return wave signals
- 338 . . . Within a borehole
- 339 By induction logging
- 340 To measure susceptibility

- 341 To measure dielectric constant
- 342 Using a toroidal coil
- 343 Using angularly spaced coils
- 344 . With radiant energy or nonconductive-type receiver
- 345 . By magnetic means
- 346 . . Within a borehole
- 347 . Using electrode arrays, circuits, structure, or supports
- 348 . . For detecting naturally occurring fields, currents, or potentials
- 349 . . . Of the telluric type
- 350 Including magneto-telluric type
- 351 . . . Within a borehole
- 352 Combined with artificial source measurement
- 353 With fluid movement or pressure variation
- 354 . . Coupled to artificial current source
- 355 . . . Within a borehole
- 356 While drilling
- 357 . . . Including separate pickup of generated fields or potentials
- 358 With three electrodes
- 359 With nonelectrode pickup means
- 360 Using a pulse-type current source
- 361 With mechanical current reversing means
- 362 To measure induced polarization
- 363 By varying the path of current flow
- 364 Using frequency variation
- 365 Offshore
- 366 For well logging
- 367 Using a pad member
- 368 Cased borehole
- 369 While drilling
- 370 Using surface current electrodes
- 371 Using plural fields
- 372 Between spaced boreholes
- 373 Using current focussing means
- 374 Including a pad member
- 375 Including plural current focussing arrays
- 376 **OF SUBSURFACE CORE SAMPLE**
- 377 . For magnetic properties
- 378 **INTERNAL-COMBUSTION ENGINE IGNITION SYSTEM OR DEVICE**
- 379 . With analysis of displayed waveform
- 380 . Electronic ignition system
- 381 . . With magnetically controlled circuit
- 382 . . With capacitor discharge circuit
- 383 . By simulating or substituting for a component under test
- 384 . Using plural tests in a conventional ignition system

- 385 . Distributor
- 386 . . Dwell (i.e., cam angle)
- 387 . . Condenser
- 388 . Coil
- 389 . Magneto
- 390 . Low or high tension lead
- 391 . Ignition timing
- 392 . . Using a pulse signal technique
- 393 . In situ testing of spark plug
- 394 . . With cathode-ray tube display
- 395 . . Using an illuminating device to indicate spark
plug condition
- 396 . . With an air gap in series with spark plug to
indicate spark plug condition
- 397 . . By shorting the plug to ground to indicate spark
plug condition
- 398 . . . With air gap in ground circuit
- 399 . . Wherein a measured electric quantity indicates
spark plug condition
- 400 . Spark plug removed or tested in a test fixture
- 401 . . Using a pressure chamber
- 402 . Apparatus for coupling a measuring instrument to
an ignition system

403 **ELECTRIC LAMP OR DISCHARGE DEVICE**

- 404 . Cathode-ray tube
- 405 . Vacuum tube
- 406 . . Plural tubes in the testing circuit
- 407 . . Testing circuit for diverse-type tube
- 408 . . Circuit for making diverse test
- 409 . . Testing discharge space characteristic (e.g.,
emission)
- 410 . . . With application of current or potential to the
discharge control means
- 411 Pulsating or alternating current or potential
for the discharge control means
- 412 Pulsating or alternating current for the
anode
- 413 . . Shock testing
- 414 . Electric lamp

415 **ELECTROMECHANICAL SWITCHING DEVICE**

- 416 . Voltage regulator
- 417 . Thermostat switch
- 418 . Relay
- 419 . . Reed switch
- 420 . . To evaluate contact chatter
- 421 . . To evaluate contact resistance
- 422 . . To evaluate contact sequence of operation
- 423 . . To evaluate contact response time
- 424 . Circuit breaker

425 **ELECTROLYTE PROPERTIES**

- 426 . Using a battery testing device

- 427 . . To determine ampere-hour charge capacity
- 428 . . . Including an integrating device
- 429 . . To determine load/no-load voltage
- 430 . . To determine internal battery impedance
- 431 . . With temperature compensation of measured condition
- 432 . . To determine battery electrolyte condition
- 433 . . To compare battery voltage with a reference voltage
- 434 . . To determine plural cell condition
- 435 . . Having particular meter scale or indicator
- 436 . . Including oscillator in measurement circuit
- 437 . . Including probe structure
- 438 . Using a pH determining device
- 439 . Using a conductivity determining device
- 440 . . Which includes a dropping mercury cell
- 441 . . Which includes a temperature responsive element
- 442 . . Which includes an oscillator
- 443 . . Having a bridge circuit
- 444 . . Which includes current and voltage electrodes
- 445 . . Having inductance probe structure
- 446 . . Having conductance probe structure
- 447 . . . With movable or adjustable electrode
- 448 . . . With concentric electrodes
- 449 . . . With axially arranged electrodes
- 450 . . Which includes particular cell container structure
- 451 **A MATERIAL PROPERTY USING THERMOELECTRIC PHENOMENON**
- 452 **A MATERIAL PROPERTY USING ELECTROSTATIC PHENOMENON**
- 453 . In a liquid
- 454 . Frictionally induced
- 455 . Corona induced
- 456 . For flaw detection
- 457 **ELECTROSTATIC FIELD**
- 458 . Using modulation-type electrometer
- 459 **USING IONIZATION EFFECTS**
- 460 . For monitoring pressure
- 461 . . Using a radioactive substance
- 462 . . Using thermionic emissions
- 463 . . Using a magnetic field
- 464 . For analysis of gas, vapor, or particles of matter
- 465 . . Using electronegative gas sensor
- 466 . . Using a filter
- 467 . . Using test material desorption
- 468 . . Using thermal ionization
- 469 . . Using a radioactive substance
- 470 . . Using thermionic emission
- 200 **MAGNETIC**

- 201 . Susceptibility
- 202 . Calibration
- 203 . Curie point determination
- 204 . Fluid material examination
- 205 . Permanent magnet testing
- 206 . Movable random length material measurement
- 207.11 . Displacement
- 207.12 .. Compensation for measurement
- 207.13 .. Having particular sensor means
- 207.14 ... Diverse sensors
- 207.15 ... Inductive
- 207.16 Electrically energized
- 207.17 Separate pick-up
- 207.18 Differential type (e.g., LVDT)
- 207.19 Differential bridge circuit
- 207.2 ... Hall effect
- 207.21 ... Magnetoresistive
- 207.22 .. Having particular sensed object
- 207.23 .. Plural measurements (e.g., linear and rotary)
- 207.24 .. Linear
- 207.25 .. Rotary
- 207.26 .. Approach or retreat
- 209 . Stress in material measurement
- 210 . Magnetic information storage element testing
- 211 .. Memory core storage element testing
- 212 .. Dynamic information element testing
- 213 . Magnetic recording medium on magnetized object
records object field
- 214 . By paramagnetic particles
- 215 .. With pattern enhancing additive
- 216 .. Flaw testing
- 217 . Railroad rail flaw testing
- 218 .. Rail joint cutout
- 219 . Magnetic sensor within material
- 220 .. Sensor supported, positioned, or moved within
pipe
- 221 ... Borehole pipe testing
- 222 . Hysteresis or eddy current loss testing
- 223 . Hysteresis loop curve display or recording
- 224 . With temperature control of material or element
of test circuit
- 225 . With compensation for test variable
- 226 . Combined
- 227 . Plural tests
- 228 . With means to create magnetic field to test
material
- 229 .. Thickness measuring
- 230 ... Layer or layered material
- 231 ... With backing member
- 232 .. Plural magnetic fields in material

- 233 . . With phase sensitive element
- 234 . . Electrically energized nonforce type sensor
- 235 . . . Noncoil type
- 236 . . . Oscillator type
- 237 Material flaw testing
- 238 . . . Material flaw testing
- 239 . . Induced voltage-type sensor
- 240 . . . Material flaw testing
- 241 Opposed induced voltage sensors
- 242 Plural sensors
- 243 . . . Plural sensors
- 244 . Magnetometers
- 244 .1 . . Optical
- 245 . . Plural sensor axis misalignment correction
- 246 . . With means to align field sensor with magnetic field sensed
- 247 . . Nonparallel plural magnetic sensors
- 248 . . Superconductive magnetometers
- 249 . . Thin film magnetometers
- 250 . . Electronic tube or microwave magnetometers
- 251 . . Hall plate magnetometers
- 252 . . Semiconductor type solid-state or magnetoresistive magnetometers
- 253 . . Saturable core magnetometers
- 254 . . . Second harmonic type
- 255 . . . Peak voltage type
- 256 . . Energized movable sensing coil magnetometers
- 257 . . Moving coil magnetometer
- 258 . . Fixed coil magnetometer
- 259 . . Movable magnet or magnetic member interacts with magnetic field
- 260 . Magnetic field detection devices
- 261 . . With support for article
- 262 . Magnetic test structure elements
- 263 . Current through test material forms test magnetic field
- 500 **FAULT DETECTING IN ELECTRIC CIRCUITS AND OF ELECTRIC COMPONENTS**
- 501 . Using radiant energy
- 502 . In an ignitor or detonator
- 503 . In vehicle wiring
- 504 . . With trailer
- 505 . . Combined with window glass
- 506 . Combined with a flashlight
- 507 . . With fuse testing attachment
- 508 . With electric power receptacle for line wire testing
- 509 . Of ground fault indication
- 510 . . Of electrically operated apparatus (power tool, appliance, machine, etc.)

- 511 . Of electrically operated apparatus (power tool,
appliance, machine, etc.)
- 512 . For fault location
- 513 .. Where component moves while under test
- 514 ... By exposing component to liquid or gas while
under test
- 515 ... Using a particular sensing electrode
- 516 Metal chain
- 517 Wire bristles
- 518 Metal pellets or beads
- 519 .. By capacitance measuring
- 520 .. By frequency sensitive or responsive detection
- 521 .. By phase sensitive or responsive detection
- 522 .. By voltage or current measuring
- 523 ... Of an applied test signal
- 524 ... Polarity responsive
- 525 .. By resistance or impedance measuring
- 526 ... Using a bridge circuit
- 527 .. By applying a test signal
- 528 ... Tracing test signal to fault location
- 529 Using a magnetic field sensor
- 530 Using an electric field sensor
- 531 ... At fault site
- 532 ... Using time measuring
- 533 Of reflected test signal
- 534 .. By reflection technique
- 535 .. By time measuring
- 536 .. By spark or arc discharge
- 537 . Of individual circuit component or element
- 750 .. System sensing fields adjacent device under
test (DUT)
- 751 ... Using electron beam probe
- 752 ... Using light probe
- 753 ... Using electro-optic device
- 754 .. With probe elements
- 755 ... Internal of or on support for device under test
(DUT)
- 756 ... Contact confirmation
- 757 ... Probe contact enhancement
- 758 ... Probe alignment or positioning
- 759 ... With recording of test results on DUT
- 760 ... With temperature control
- 761 ... Pin
- 762 ... Cantilever
- 763 .. DUT including test circuit
- 764 .. With identification of DUT
- 765 .. Test of semiconductor device
- 766 ... With barrier layer
- 767 Diode
- 768 Bipolar transistor

- 769 Field effect transistor
- 770 . . Liquid crystal device test
- 771 . . Power supply test
- 772 . . Motor or generator fault tests
- 538 . . Electrical connectors
- 539 . . Multiconductor cable
- 540 . . . With sequencer
- 541 . . . For insulation fault
- 542 . . . Having a light or sound indicator
- 543 . . Single conductor cable
- 544 . . . For insulation fault
- 545 . . Armature or rotor
- 546 . . Winding or coil
- 547 . . . Transformer
- 548 . . Capacitor
- 549 . . Resistor
- 550 . . Fuse
- 551 . . Insulation
- 552 . . . Bushing
- 553 . . . Oil
- 554 . . . Sheet material
- 555 . Instruments and devices for fault testing
- 556 . . Having a lamp or light indicator
- 557 **FOR INSULATION FAULT OF NONCIRCUIT ELEMENTS**
- 558 . Where element moves while under test
- 559 . Where a moving sensing electrode scans a stationary element under test
- 600 **IMPEDANCE, ADMITTANCE OR OTHER QUANTITIES REPRESENTATIVE OF ELECTRICAL STIMULUS/RESPONSE RELATIONSHIPS**
- 601 . Calibration
- 602 . With auxiliary means to condition stimulus/response signals
- 603 . . For excitation
- 604 . . . Including marker signal generator circuit
- 605 . . For response signal evaluation or processing
- 606 . . . Including a signal comparison circuit
- 607 . . . Including a conversion (e.g., A->D or D-> A) process
- 608 . . . Including a ratiometric function
- 609 . . For sensing
- 610 . . . Including a bridge circuit
- 611 . . . Including a remote type circuit
- 612 . Parameter related to the reproduction or fidelity of a signal affected by a circuit under test
- 613 . . Noise
- 614 . . . Signal to noise ratio or noise figure
- 615 . . Transfer function type characteristics
- 616 . . . Gain or attenuation
- 617 . . . Response time or phase delay

- 618 . . . Transient response or transient recovery time
(e.g., damping)
- 619 . . . Selective type characteristics
- 620 . . Distortion
- 621 . . . Envelope delay
- 622 . . . Phase
- 623 . . . Harmonic
- 624 . . . Intermodulation
- 625 . . . Dissymmetry or asymmetry
- 626 . . . Nonlinearity
- 627 . . Shielding effectiveness (SE)
- 628 . . . Circuit interference (e.g., crosstalk)
measurement
- 629 . Distributive type parameters
- 630 . . Plural diverse parameters
- 631 . . Using wave polarization (e.g., field rotation)
- 632 . . Using particular field coupling type (e.g.,
fringing field)
- 633 . . Using resonant frequency
- 634 . . . To determine water content
- 635 . . . To determine dimension (e.g., distance or
thickness)
- 636 . . . With a resonant cavity
- 637 . . Using transmitted or reflected microwaves
- 638 . . . Scattering type parameters (e.g., complex
reflection coefficient)
- 639 . . . Where energy is transmitted through a test
substance
- 640 To determine water content
- 641 To determine insertion loss
- 642 . . . Where energy is reflected (e.g., reflectometry)
- 643 To determine water content
- 644 To determine dimension (e.g., distance or
thickness)
- 645 Having standing wave pattern
- 646 To determine reflection coefficient
- 647 . . Using a comparison or difference circuit
- 648 . . . With a bridge circuit
- 649 . Lumped type parameters
- 650 . . Using phasor or vector analysis
- 651 . . . With a bridge circuit
- 652 . . Of a resonant circuit
- 653 . . For figure of merit or Q value
- 654 . . Using inductive type measurement
- 655 . . . Including a tuned or resonant circuit
- 656 . . . Including a comparison or difference circuit
- 657 Using a bridge circuit
- 658 . . Using capacitive type measurement
- 659 . . . With loss characteristic evaluation
- 660 . . . With variable electrode area

- 661 . . . With variable distance between capacitor electrodes
- 662 To determine dimension (e.g., thickness or distance)
- 663 . . . Where a material or object forms part of the dielectric being measured
- 664 To determine water content
- 665 By comparison or difference circuit
- 666 Including a bridge circuit
- 667 By frequency signal response, change or processing circuit
- 668 Including a tuned or resonant circuit
- 669 With compensation means
- 670 For temperature variations
- 671 To determine dimension (e.g., dielectric thickness)
- 672 By comparison or difference circuit
- 673 Including a bridge circuit
- 674 By frequency signal response, change or processing circuit
- 675 Including a tuned or resonant circuit
- 676 . . . With pulse signal processing circuit
- 677 Including R/C time constant circuit
- 678 Including charge or discharge cycle circuit
- 679 . . . With comparison or difference circuit
- 680 Including a bridge circuit
- 681 . . . With frequency signal response, change or processing circuit
- 682 Including a tuned or resonant circuit
- 683 . . . With phase signal processing circuit
- 684 . . . With compensation means
- 685 For temperature variation
- 686 . . . With a capacitive sensing means
- 687 Having fringing field coupling
- 688 Including a guard or ground electrode
- 689 To determine water content
- 690 Including a probe type structure
- 691 . . Using resistance or conductance measurement
- 692 . . . With living organism condition determination using conductivity effects
- 693 . . . With object or substance characteristic determination using conductivity effects
- 694 To determine water content
- 695 Where the object moves while under test
- 696 With a probe structure
- 697 For interface
- 698 To determine oil qualities
- 699 To determine dimension (e.g., distance or thickness)
- 700 Including corrosion or erosion
- 701 Where the object moves while under test

- 702 . . . With radiant energy effects
- 703 Including heating
- 704 . . . With ratio determination
- 705 . . . With comparison or difference circuit
- 706 Including a bridge circuit
- 707 . . . With frequency response, change or processing circuit
- 708 Including a tuned or resonant circuit
- 709 . . . With phase signal processing circuit
- 710 . . . With pulse signal processing circuit
- 711 Including R/C time constant circuit
- 712 Including a digital or logic circuit
- 713 . . . With voltage or current signal evaluation
- 714 Including a potentiometer
- 715 Including a particular probing technique (e.g., four point probe)
- 716 To determine dimension (e.g., distance or thickness)
- 717 To determine material composition
- 718 To detect a flaw or defect
- 719 . . . With semiconductor or IC materials quality determination using conductivity effects
- 720 . . . With compensation means
- 721 For temperature variation
- 722 . . . Device or apparatus determines conductivity effects
- 723 Potentiometer
- 724 Using a probe type structure
- 725 . Using a particular bridge circuit
- 726 . Transformer testing (e.g., ratio)
- 727 . Piezoelectric crystal testing (e.g., frequency, resistance)
- 66 **CONDUCTOR IDENTIFICATION OR LOCATION (E.G., PHASE IDENTIFICATION)**
- 67 . Inaccessible (at test point) conductor (e.g., buried in wall)
- 160 **ELECTRICAL SPEED MEASURING**
- 161 . Speed comparing means
- 162 . With acceleration measuring means
- 163 . Including speed analog electrical signal generator
- 164 . . Eddy current generator type (e.g., tachometer)
- 165 . . With direction indicator
- 166 . Including speed-related frequency generator
- 167 . . Including rotating magnetic field actuated indicator
- 168 . . Including periodic switch
- 169 . . . In ignition system
- 170 High voltage speed signal type
- 171 . . . With extent-of-travel indicator
- 172 . . Including synchronized recording medium
- 173 . . Including magnetic detector

- 174 . . . Permanent magnet type
- 175 . . Including radiant energy detector
- 176 . Including object displacement varied variable
circuit impedance
- 177 . Including motor current or voltage sensor
- 178 . Including "event" sensing means
- 179 . . Magnetic field sensor
- 180 . . Mechanically actuated switch
- 71.1 **DETERMINING NONELECTRIC PROPERTIES BY
MEASURING ELECTRIC PROPERTIES**
- 71.2 . Erosion
- 71.3 . Beam of atomic particles
- 71.4 . Particle counting
- 71.5 . Semiconductors for nonelectrical property
- 71.6 . Superconductors
- 72 **TESTING POTENTIAL IN SPECIFIC
ENVIRONMENT (E.G., LIGHTNING STROKE)**
- 72.5 . Voltage probe
- 73.1 **PLURAL, AUTOMATICALLY SEQUENTIAL TESTS**
- 74 **TESTING AND CALIBRATING ELECTRIC METERS
(E.G., WATT-HOUR METERS)**
- 75 . By stroboscopic means
- 76.11 **MEASURING, TESTING, OR SENSING
ELECTRICITY, PER SE**
- 76.12 . Analysis of complex waves
- 76.13 . . Amplitude distribution
- 76.14 . . . Radiometer (e.g., microwave, etc.)
- 76.15 . . . With sampler
- 76.16 . . . With counter
- 76.17 . . . With integrator
- 76.18 . . . With slope detector
- 76.19 . . Frequency spectrum analyzer
- 76.21 . . . By Fourier analysis
- 76.22 . . . Real-time spectrum analyzer
- 76.23 . . . With mixer
- 76.24 . . . With sampler
- 76.25 . . . With slope detector
- 76.26 . . . Scanning-panoramic receiver
- 76.27 With particular sweep circuit
- 77.11 . . . Nonscanning
- 76.28 Digital filter
- 76.29 With filtering
- 76.31 Parallel filters
- 76.32 With space discharge device
- 76.33 Correlation
- 76.34 With space discharge device
- 76.35 With delay line
- 76.36 With optics
- 76.37 Bragg cell
- 76.38 . . With sampler

- 76.39 . Frequency of cyclic current or voltage (e.g., cyclic counting etc.)
- 76.41 .. Frequency comparison, (e.g., heterodyne, etc.)
- 76.42 ... With sampler
- 76.43 ... With plural mixers
- 76.44 ... With filtering
- 76.45 Bandpass
- 76.46 Plural
- 76.47 ... Digital output
- 76.48 With counter
- 76.49 .. Tuned mechanical resonator (e.g., reed, piezocrystal, etc.)
- 76.51 .. By tuning (e.g., to resonance, etc.)
- 76.52 .. By phase comparison
- 76.53 ... With phase lock
- 76.54 ... With delay line
- 76.55 ... Digital output
- 76.56 With microwave frequency detection
- 76.57 With tone detection
- 76.58 With sampler
- 76.59 With multiplexing
- 76.61 With memory
- 76.62 With counter
- 76.63 Using register
- 76.64 Plural
- 76.65 With space discharge device
- 76.66 ... With capacitive energy storage
- 76.67 With space discharge device
- 76.68 ... With filtering
- 76.69 ... Current output proportional to frequency
- 76.71 ... Nulling circuit
- 76.72 ... Qualitative output
- 76.73 ... With saturable device
- 76.74 ... Deviation measurement
- 76.75 .. Having inductive sensing
- 76.76 .. With space discharge device
- 76.77 . Phase comparison (e.g., between cyclic pulse voltage and sinusoidal current, etc.)
- 76.78 .. Quadrature sensing
- 76.79 .. Feedback control, electrical
- 76.81 .. Feedback control, mechanical
- 76.82 .. Digital output
- 76.83 .. Analog output
- 84 .. With waveguide (e.g., coaxial cable)
- 85 .. With frequency conversion
- 86 .. Polyphase (e.g., phase angle, phase rotation or sequence)
- 87 .. With nonlinear device (e.g., saturable reactor, rectifier), discharge device (e.g., gas tube) or lamp
- 88 ... Cathode ray

- 89 ... Space discharge control means (e.g., grid)
- 90 .. Electrodynamometer instrument
- 91 .. Synchroscope type
- 92 . Fluid (e.g., thermal expansion)
- 93 .. Conductive field (e.g., mercury)
- 94 ... Electrolytic
- 95 . With waveguide or long line
- 96 . Using radiant energy
- 97 .. Light beam type (e.g., mirror galvanometer,
 parallax-free scale)
- 98 . Balancing (e.g., known/unknown voltage
 comparison, bridge, rebalancing)
- 99 R .. Automatic
- 100 ... With recording
- 99 D ... Digital voltmeters
- 101 . Non-rebalancing bridge
- 102 . Transient or portion of cyclic
- 103 R . Demand, excess, maximum or minimum (e.g.,
 separate meters for positive and negative power, peak
 voltmeter)
- 104 .. Thermal (e.g., actuation)
- 103 P .. Peak voltmeters
- 105 . Thermal (e.g., compensation)
- 106 .. Actuation
- 107 . Polyphase
- 108 .. Positive, negative or zero sequence
- 109 . Electrostatic attraction or piezoelectric
- 110 . Meter protection or fraud combatting
- 111 . With storage means for voltage or current (e.g.,
 condenser banks)
- 112 .. Tape, sheet (e.g., disk) or wire (e.g., magnetic)
 storage
- 113 . Recording
- 114 . Plural meters (e.g., plural movements in one
 case)
- 115 . Plural ranges, scales or registration rates
- 116 .. With register (e.g., discount type, demand
 penalty)
- 117 R . Magnetic saturation (e.g., in field or in amplifier)
- 117 H .. Hall effect
- 118 . Modulator/demodulator
- 119 . With rectifier (e.g., A.C. to D.C.)
- 120 . With voltage or current conversion (e.g., D.C. to
 A.C., 60 to 1000)
- 121 R . Cathode ray (e.g., magic eye)
- 121 E .. Magic eye indicators
- 122 . Gaseous discharge (e.g., spark gap voltmeter)
- 123 R . With amplifier or space discharge device
- 124 .. Inverted amplifier
- 123 C .. Feedback amplifiers

- 125 . Inertia control, instrument damping and vibration damping
- 126 . With coupling means (e.g., attenuator, shunt)
- 127 . . Transformer (e.g., split core admits conductor carrying unknown current)
- 128 . . Selective filter
- 129 . Polepiece (e.g., split) admits nonunitary input conductor
- 130 . Self-calibration
- 131 . Suppressed zero
- 132 . Nonlinear (e.g., Thyrite)
- 133 . Nonquantitative (e.g., hot-line indicator, polarity tester)
- 134 . With commutator or reversing or pulsating switch (e.g., D.C. watt-hour meter)
- 135 . . Oscillating
- 136 . With rolling wheel or ball (e.g., transmission, integrating)
- 137 . Eddy current rotor (e.g., A.C. integrating wattmeter)
- 138 . . With phase adjustment
- 139 . Motor-driven, time-controlled or oscillating (e.g., ratchet)
- 140 R . Plural inputs (e.g., summation, ratio)
- 141 . . Voltamperes (real or reactive)
- 142 . . Watts
- 140 D . . Ratio
- 143 . Plural active motor elements (e.g., for two crossed pointers)
- 144 . With electromagnetic field (e.g., dynamometer)
- 145 . . Solenoid plunger type
- 146 . . With permanent magnet (e.g., field, vane)
- 147 . . Soft iron vane
- 149 . With probe, prod or terminals
- 150 . Eccentrically pivoted coil
- 151 R . With permanent magnet
- 152 . . Drag magnet
- 151 A . . Permanent magnet core
- 153 . With register
- 154 R . With rotor (e.g., filar suspension, zero set, balancing)
- 155 . . With pivot (e.g., internal friction compensation, anticreep)
- 154 PB . . Pointer and bearing details
- 156 . Casings
- 157 . Combined
- 158.1 **MISCELLANEOUS**

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